

Remarks/Arguments

The preceding amendment and following remarks are submitted in response to the Final Office Action of the Examiner mailed August 5, 2003, setting a three-month shortened statutory period for response ending November 5, 2003.

Enclosed herewith is a supplemental IDS for consideration by the Examiner.

In the Final Office Action, the Examiner indicated that claims 1-61, and 63-64 were allowable. However, the Examiner rejected claims 62 and 65 in view of Noddings et al. (U.S. Patent No. 5,574,814). With this Preliminary Amendment, claim 62 has been amended to include the limitations of claim 63, and claim 63 has been canceled without prejudice. As such, it is believed that pending claims 1-3, 5, 7-12, 14-62, and 64-65 are now in condition for allowance.

Applicant has also added newly presented claim 66, which is similar to originally presented claim 62 but with certain amendments. Newly presented claim 66 recites:

66. (Newly Presented) A chip-scale package for photonic devices, comprising:  
a window;  
a chip fixed relative to a first side of said window;  
a housing having a body with an outer surface and an inner surface, the inner surface extending around said chip and fixed relative to said window to form a chip cavity; and  
said housing being monolithic and having at least one electrical terminal along its outer surface, which is electrically connected through the body via an embedded trace in the housing to at least one electrical terminal along the inner surface of the housing.

Newly presented claim 66 is supported by, for example, Figure 1a of the present specification.

Clearly, nothing in Noddings et al. suggests a housing that is monolithic and that has at least one

electrical terminal along its outer surface, which is electrically connected through the body via an embedded trace in the housing to at least one electrical terminal along the inner surface of the housing. Instead, and as can be clearly seen in Figures 1 and 3 of Noddings et al., the package 100 of Noddings et al. is made up of a number of separate pieces that are ultimately assembled. In addition, element 130 of Noddings et al. is a wire assembly (see Noddings et al., column 4, line 34), which appears to be inserted between the substrate 129 and seal ring 132 during assembly, and element 116 is a flex wire assembly (see Noddings et al., column 4, lines 18-19). Neither wire assembly 130 nor flex wire assembly 116 can fairly be considered an embedded trace in a monolithic housing, as recited in newly presented claim 66. As such, newly presented claim 66 is believed to be clearly patentable over Noddings et al.

Newly presented claim 67 is dependent from newly presented claim 66 and further recites that the window and the housing form a hermetically sealed chip cavity. In Noddings et al., it does not appear that a hermetically sealed chip cavity would be provided, as recited in claim 67. For example, in Noddings et al., the wire assembly 130 appears to include a number of spaced wires (see Noddings et al., Figure 1), that are interposed between substrate 129 and seal ring 132. To accommodate the wire assembly 130, and as better shown in Figure 2 of Noddings et al., there appears to be a space between the seal ring 132 and the substrate 129. Thus, it is not clear how the seal ring 132 could possibly fill the gaps between the spaced wires (see Figure 1 of Noddings et al.) of the wire assembly 130 to produce a hermetically sealed chip cavity, as recited in claim 67. As such, claim 67 is believed to be clearly patentable over Noddings et al. For

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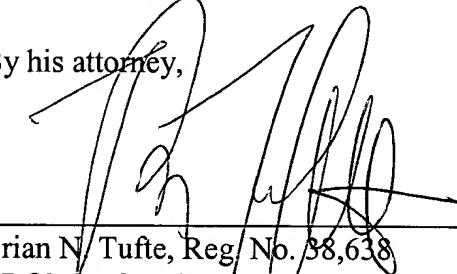
similar and other reasons, newly presented claim 68 is believed to be clearly patentable over  
Noddings et al.

In view of the foregoing, it is respectfully submitted that all pending claims 1-3, 5, 7-12, 14-62, and 64-65 are now in condition for allowance. Issuance of a Notice of Allowance in due course is respectfully requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By his attorney,

  
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